



Getting into the habit

Maybe old habits don't die so hard. In fact, North Andoverites are proving that getting into a new habit—by recycling more—isn't tough at all!

A year ago, on January 31, 2005, the Town of North Andover began vigorous enforcement on the existing state bans on placing recyclables into the trash. Each month, we've been measuring how residents are doing—and the news is all positive! We have *averaged* a 100-ton reduction of trash being hauled to the incinerator each month, compared to figures from the previous 12 months. This translated into a savings of \$126,000 between February 1 and September 30, an average savings of \$15,750 per month.

Since September of 2004, residents have been able to recycle all plastics marked with the chasing-arrows recycling symbol and a number (#1 – #7). This helps reduce the *volume* of trash that we transport. More importantly, it eliminates the unnecessary incineration of plastic. Incinerating certain plastics can result in the creation of hazardous byproducts, such as dioxin which has adverse health effects. By reducing our incineration of plastics, we reduce the risks associated with these byproducts.

Paper and cardboard, however, account for most of the *weight* of our trash. At the incinerator, we pay *by the ton* to dispose of trash. Therefore, tonnage is the basis on which our costs *and savings* are calculated. Pulling out as much clean paper and cardboard as possible from our trash is the key to North Andover reducing our costs and improving our recycling rate.

In September 2005, our "tipping fee," or cost per ton to incinerate our trash at the Wheelabrator facility, decreased from \$140 to \$64 per ton. This means that our savings on

trash disposal won't be as dramatic as they were in the first several months of the increased enforcement.

However, now that North Andover is collecting a large amount of recyclable paper and cardboard on a monthly basis, our income from this material is growing. Residents are



Check it out! Do you have more recycling than trash? Did you know that two-thirds of household trash is recyclable or compostable?

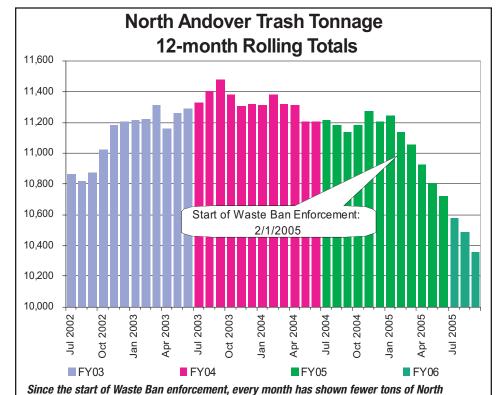
putting out clean, dry mixed paper and cardboard and manufacturers cannot get enough of it (see "To Market, To Market" on this page). This paper and cardboard have in turn created a revenue stream for the town. The town saves by not burning the paper (an "avoided cost") and gains by selling the paper to the paper recycler, helping support our program costs. The payment per ton fluctuates with the paper markets. The town has earned over \$7,000 in six months.

With increased paper and cardboard recycling, the environment wins too. Depending on the type of paper being produced, it takes eight to 24 trees to create 1 ton of paper (with

no recycled content). By creating paper with recycled content—and the higher that content the better—we conserve our forest resources. In addition, recycling papers reduces the emissions of air pollutants and particulates (small particles released into the air), lowers waste-

water output and toxicity, and cuts back on greenhouse gas emissions.

As you can see, there are many reasons to trim the weight and volume of your trash and increase your recycling. Your new habits are better for all of us!



Andover trash tipped at the Wheelabrator plant on Holt Road than the same month in the prior year. Each month's total shown includes that month along with the 11 preceding months. Each bar depicts the annualized total above 10,000 tons. A graph like this helps us see trends in our waste disposal, and the trend is moving in the right direction. Keep up the good work!

North Andover students create scrap sculpture to show off local history

In October, 120 eighth-grade students at North Andover Middle School began a "scrap sculptures / trash treasure" recycled art project designed to supplement the Social Studies project: "North Andover, 1642 to1862: A Special Place in American History." Teams of students, ranging in size from 4 to 9, were led by Sue Gaffny, the eighth-grade Social Studies teacher, and Kristan Phelps, a middle school art teacher.



Local Artist Pat Wymore of Lowell assists these 8th-grade students in the design and building of a "scrap sculpture / trash treasure" in Mrs. Gaffny's Social Studies class.

Each group of students discussed topics and decided upon a theme. Topics chosen by the student teams included "Boating On The Merrimack," "North Andover Common," "The Old Mill," and "Children's Games of the 1600's." After selecting a theme, the students researched the topic and produced both a written history and a three-dimensional art work. At least 80 percent of the raw materials for the art work had to be discarded products, such as milk cartons, newspapers, magazines, boxes, plastics of all kinds, and aluminum, and then assembled using twist ties, masking or duct tape, twine, staples, and glue.

The finished creations are being exhibited at the middle school in common areas and the courtyard. In the coming months, some will also be on display in business and government lobbies and waiting rooms around North Andover for the general public to see and enjoy.

This project is a collaborative effort of the North Andover School System, NASWAC, and American Community Think Tank, a local non-profit for children's programs. Stay tuned for a spring surprise community-wide event!

To market, to market

By Tina Klein

I still get questions from curious recyclers, as well as from non-recyclers, about whether the material collected is really being recycled. Do you recall hearing stories of vast quantities of paper and cardboard accumulating because there were no buyers, so recycling trucks headed straight to landfills? Happily, this is no longer true.

Paper markets are very strong and many communities, including ours, are now being paid for the paper we collect. I recently had the opportunity to tour the facility that processes our paper, and it was fascinating. Our mixed paper from the curbside and drop-off programs ends up at a plant owned by Newark Group in Franklin, MA. We can feel good about the fact that our paper is staying right here in Massachusetts, supporting our regional paper industry. In fact, this plant needs a lot more paper, so by recycling more, we help our regional economy even more!

The paper is not baled but delivered loose to the plant. Once there, it moves along a conveyor belt where first a mechanical and then a manual process remove contaminants. This mostly contaminant-free paper is then pushed into a "pulper," which is like a giant cement mixer. As the pulper spins, a great deal of water is added, creating a soupy paper pulp. At this stage, additional steps remove smaller contaminants, such as plastic pieces, dirt, staples,

and paper clips. The pulped paper is evenly sprayed across a screen and begins the drying process. Two hours later, the mixed paper that was pushed in the front end comes out as a three-ply (three-layer) paperboard used to create game boards, backs of hard-covered books, puzzles, and more.

The market for our metals is also very strong. Plus, aluminum and steel are endlessly recyclable. In fact, did you know that most paper fibers can be recycled up to seven times but aluminum can be recycled indefinitely?

Our plastic bottles and jugs become a variety of different products. Plastic soda and water bottles (made from PET, or #1 plastic) are turned into fleece and other fabric, and milk jugs and detergent bottles (HDPE, or #2 plastic) become toys, kitchen utensils, carpet backing, and even plastic lumber that is used as decking material. You may be wearing a recycled soda bottle fleece hoodie this winter or walking on cozy carpet cushioned by recycled shampoo bottles. Most of our other plastic is taken to the Conigliaro plant in Framingham where it is turned into Plas-Crete Wall Blocks to be used in building construction. Learn more about these recycled-plastic blocks at www.conigliaro.com/products/plascrete.cfm.

So, if you ever hear someone questioning if our materials get recycled or whether recycling is worth it, you can confidently answer with a resounding, "YES!" Thanks, North Andover, for all you recycle.

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10 Tips

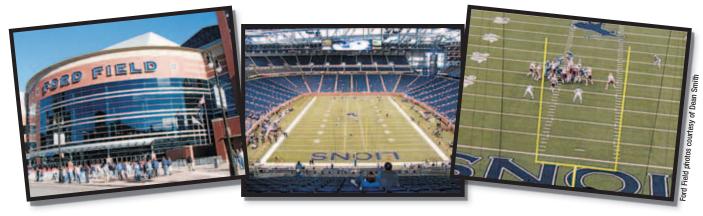
for a "New and Improved" Year

It's the time of year when we're thinking about making things better—ourselves, our families, our homes, our work. As you're making your resolutions, consider these 10 tips:

- 1. Before you buy, ask yourself: Do I need this? Do I already have something like this? What will I do with this when I no longer need it?
- Spend more time with family and friends and less time shopping. And, yes, that means putting down the catalog and surfing past Internet stores, too!



- Start your exercise or other self-improvement program on borrowed or shared equipment. If you stick with the program or hobby, you can purchase your own supplies and equipment, if you need them, later.
- Shop used first. Whether you're buying books, DVDs, videos, CDs, toys, games, jewelry, exercise equipment, furniture, or cars, make "used" your first choice. In most cases, you'll find items that are serviceable and less expensive. In some cases, you'll find items that may have been pre-owned but are actually brand-
- Take toxics off your shopping list. Start by choosing biodegradable and non-toxic cleaning products and selecting only latex paints for home improvement projects.
- Know what can be recycled locally. If you don't know what you can recycle, contact us to find out!
- Once you know what is recyclable, shop with recycling in mind. For instance, if grape jelly is available in both a recyclable and nonrecyclable container, choose the recyclable container.
- Commit to recycled-content products. Successful recycling programs depend on having manufacturers use your recyclables. Manufacturers won't use recyclables to make what people won't buy. Look for polar fleed made from recycled soft drink bottles. Select recycled-content carpet. Buy the paper with a phrase such as "post-consumer recycledcontent" printed on the wrapper.
- Share more of yourself with others this year. Volunteer more time. Give away more old, but still usable, stuff.
- 10. Relax and enjoy your life. Find a book you own but haven't read; curl up on a Saturday and read it! Watch a movie in your collection that you have never had time to watch. Pull out the stationery that a friend gave you three birthday's ago and write a letter.



ROAD TO FORTY" IS ALSO ROAD TO RECYC

On February 5th, football fans and curious commercial watchers will be experiencing the first Super Bowl to take place on a recycled field. Ford Field in Detroit will host the first-ever Super Bowl played on FieldTurf, a multilayered system that uses shredded rubber from used tires and old athletic shoes along with sand to create a cushiony playing field. The field, which was installed when the stadium was built in 2002, is made from 25,000 used tires. (When you see that black "spray" coming out of the field after hard contact, you're seeing the crumb rubber and sand.)

Other recycling at Ford Field that you'll see only if you're a ticket holder includes recycled glass in the terrazzo floors and toilet stall partitions made from recycled plastic soft drink bottles.

If you're enjoying Super Bowl XL at home or with friends, be sure to include recycling in your party plans. Have a recycling bin for beverage containers. Reduce waste by purchasing snack food in bulk packages. And opt for reusable and washable napkins, plates, and silverware.

Go recycling! Go team!

On the trail of trash

Did you ever think about following your trash? Probably not, and neither did journalist Elizabeth Royte—that is, until Earth Day 2002 when she joined volunteers who were picking up floating garbage in her hometown, Brooklyn, NY.

That boat ride with all of its visible trash led her to think about all of the "invisible" trash that we dispose each day. She writes: "You can't live in New York or any big city and not be aware that vast tonnages of waste are generated daily.... But most of the time that reality is virtual, because somehow our unwanted stuff keeps disappearing. It moves away from us in pieces—truck by truck, barge by bargein a process that is as constant as it is invisible." After this, Royte

became increasingly curious about what happened to the 1.31 tons of waste that she created each year. (BioCycle magazine and Columbia University's Earth Engineering Center estimate that on average each American generated 1.31 tons of waste in 2003.) Rather than simply wonder, she began to

First, she began separating and weighing her own household trash. On her first day, her three-person household tossed 7 pounds, 9 ounces of mixed waste. From

there, her research took her out of her home, around the city, and across the country where she met trash collectors, rode trash trucks, visited landfills, explored recycling centers, and more. The result of her efforts is the book, Garbage

Land: On the Secret Trail of Trash, which was published by Little, Brown and Company in 2005.

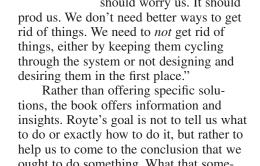
In Garbage Land, Royte makes visible the invisible—the trash we throw away, the packaging we recycle, and even what we flush. Her conclusion? In her last chapter, "The Ecological Citizen," she writes: "Our trash cans, I believe, ought to make us think...about the enormous amount of material and energy that goes into the stuff we use for an instant and then discard. Garbage should worry us. It should

Rather than offering specific soluought to do something. What that something is, she leaves to her readers.

Seeking solutions?

Helen Spiegelman and Bill Sheehan offer several proposals for reducing the amount of waste we generate and improving the way we handle it in "Unintended Consequences: Municipal Solid Waste Management and the Throwaway Society." This paper can be downloaded at www.solidwastemag.com/ PostedDocuments/docu ments.asp. (Scroll down to "June/July 2005: Related Reports and Articles" and click to download the full report.)

To read even more about these issues, check out the Winter-Spring 2005 special edition of the Journal of Industrial Ecology at http://mitpress.mit.edu/ catalog/item/default.asp?t type=5&tid=1704. Focused entirely on consumption and industrial ecology, this issue explores what we produce, what we buy, whether our manufacturing processes and shopping habits are sustainable, and more.



Photos courtesy of Chris Jordan Photography



Looking for beauty in unlikely pieces

Photographer Chris Jordan has also been trailing our trash, in shipping ports, industrial yards, and waste processing facilities. His photographs, which are gathered in the exhibit "Intolerable Beauty — Portraits of American Mass

Consumption," capture what our consumer habits leave

To learn more about Jordan's art and to see more of the images from his show, visit www.chrisjordan.com.

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According to the U.S. Environmental Protection Agency, recycling is one of the most effective ways for individuals and communities to reduce greenhouse gas emissions. Greenhouse gases have a "heat-trapping" effect on our atmosphere. While heat-trapping may sound pretty good during the winter, the long-term and year-round effects are a concern.

Here are some of the ways that recycling reduces greenhouse gas emissions:

- · When fewer materials are landfilled, total methane production decreases. Methane, which is considered a greenhouse gas, is produced when organic materials decompose in a landfill.
- When paper products are recycled, fewer trees are cleared from forests and tree farms. The trees that are left

- another greenhouse gas, and hold it where it is being used by plants rather than affecting the atmosphere.
- Creating new products from recyclables requires less energy than making the same products from virgin materials. By decreasing energy use, we lower greenhouse gas emissions from power plants by burning fewer fossil fuels.

As you can imagine, reducing our waste by purchasing and using less and reusing what we already have decrease greenhouse gas emissions even more!

For more information, visit the U.S. EPA's global warming site, http:// yosemite.epa.gov/oar/globalwarming. nsf/content/index.html. You can also access the site by going to www.epa.gov and clicking on "Global Warming."

standing capture carbon dioxide, Rescuing one box at a time

Have you ever thought, "I ought to start a business doing that"? Marty Metro thought that and did-founding UsedCardboardBoxes.com. The company's motto is "Rescue, Resell, Recycle."

The company partners with retailers to collect and warehouse used but undamaged boxes. Customers can order boxes online and, in some locations, receive them within 24 hours. The used boxes are generally sold for about half of the original retail price of a new box. If the request cannot be filled by UsedCardboardBoxes, the customer is redirected to other

For more information, visit www.UsedCardboardBoxes.com or call 1-888-BOXES-88.



FAST FACTS

- In September, the BIC corporation announced that it had sold its 100-billionth yes, that's 100,000,000,000—disposable ballpoint pen. According to the company, the pen has sold on average 57 times a second since 1950, when it was
- The average office worker uses 10,000 sheets of copy paper each year—that's about five sheets every working hour!

The great thing in this world is not so much where you stand, as in what direction you are moving.

> Oliver Wendell Holmes, 1809-94 American physician, author, and poet



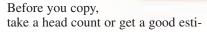
Whether you're choosing supplies to use at home, to run an office, or to get you through the school day, you can reduce your waste. You'll also reduce your costs. Here are some ideas to help keep your money in the bank:

 Use both sides of the paper. You don't expect to read a book or magazine printed on the front side only, so why print anything else that way?

Go without. When you have a choice etween a paper form and a paperless online option, opt for the computer keyboard rather than pen and paper. If you are in charge of surveys, registrations, or order forms, create paperless forms.

Need handouts? Before you copy, mate of the number of people who will be in attendance.

- · Eliminate unneeded printing. Save paper by bookmarking websites and storing e-mails in electronic folders.
 - Reuse computer disks, including old floppies, if you still use them, and rewritable CDs and DVDs.
 - Buy refillable pens and mechanical pencils to reduce waste. Refills are also cheaper than new pens and pencils.
 - Choose remanufactured (or refilled) toner cartridges, which cost less and provide the same amount of ink
- Check your supplies before you shop. If you keep pens, pencils, markers, paper, paper clips, toner cartridges, post-it notes, and tape refills organized, you will know what you have and what you need, avoiding unnecessary purchases.
- · Avoid the "brown bag," and pack your lunch in a reusable bag or box. Encourage others to do the same.



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To encourage and facilitate *reuse*, NASWAC will organize an annual town-wide Yard Sale Day. This event, which will be held each June beginning this year, will promote reuse and also serve as a fund-raiser for the committee. Here's how it will work:

- We're planning the event for Saturday, June 24.
- We will create and print fliers for distribution around North Andover and surrounding communities. The flier will include a town map and list all the addresses that have registered their yard sales with us
- Any household that would like to be listed on the flier must register and pay a \$10 fee. Starting in April, the registration form will be available on our website, www.northandoverrecycles.com.
- The registration fee will cover the costs of designing and printing the fliers. Any additional funds will be used by the Recycling Committee to plan, develop, and implement future waste reduction, reuse, and recycling programs.
- At the time of registration, each household will be asked if they would like to be listed at the end of the event on "Freecycle North Andover" (www.free cycle.org) where yard sale "leftovers" can be advertised to be given away for free.
- We are looking for volunteers to help organize this effort. Please send an e-mail to recycle@townofnorthandover. com if you would like to volunteer.

Check out the magazine swap set up at the Stevens Memorial Library near the lower level door and Children's Room.

Take a few magazines; leave a few magazines. Please note, this is not for recycling large volumes of really old magazines. You'll want to continue to use the Recycling Drop-off or curbside collection for that.

The North Andover Solid Waste Advisory Committee (NASWAC) members are:
Tina Klein, Chair; Steve Daly, Vice Chair;
Mark Caggiano, Selectman; Bill Hmurciak,
DPW Director; Margaret Barrett; Karen
Kline; Joan Kulash; Deb Lynch; Joanne
Parrill; and Leslie Young-Lemire.

The Frequently Asked Questions page is finally published. Unable to find the answer on the website to a recycling or trash question? Let us know! The site is going through a major overhaul, so the timing is perfect for adding other useful information. Check it out, www.northandover recycles.com, for updates on all of our programs! Bookmark it as one your favorites.

We want your suggestions, questions and comments! NASWAC c/o Department of Public Works 384 Osgood Street

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PRINTED ON RECYCLED PAPER 70% POST-CONSUMER NEWS CONTENT, USING SOY INKS

Please recycle this publication after you have read it!

What is sustainability? Why should we care?

Sustainability is one of those terms that you hear more and more often. But what does it mean? Simply put, sustainability is meeting today's needs for goods in such a way that future generations will be able to meet their needs as well. In other words, it is putting into action the famous saying, "We do not inherit the earth from our ancestors; we borrow it from our children."

In 1998, a New England group of professionals who wanted to address environmental and social challenges founded "Sustainable Step New England" (SSNE). SSNE is devoted to finding positive solutions that help create systems, or ways of doing things, that support better and healthier use of our resources for the short- and long-term.

SSNE has set forth four conditions for a sustainable system:

- Toxins that we harvest from the earth cannot be allowed to accumulate in the environment.
- Materials created by humans cannot build up faster than the ecosystem can break them down.
- 3. Meeting our needs today cannot destroy our ability to meet our needs in the future.
- 4. Resources need to be used equitably and efficiently—globally.

Living more sustainably can begin in our own homes and workplaces. Let's look at the first condition, using fewer toxins that will accumulate in our environment.

Accomplishing this at home can mean easy steps, such as buying fewer toxic household cleaners, using a bit more "elbow grease," or looking for "biodegradable" and "non-toxic" substitutes. At work, eliminating paper forms, and thus your use of ink and toner, is a simple starting point.

Here in the Merrimack Valley, mercury is a toxin that contaminates many of our lakes and rivers, resulting in advisories to limit your consumption of locally caught fish. We have a mercury problem because we have used and dumped more of this toxin than our environment could handle. To stop contributing to this problem, which is the first step in solving it, we can:

• Recycle old thermostats. With high energy

prices and cold temperatures, many homeowners will probably replace old, mercurycontaining thermostats for newer digital (non-mercury) models. Be sure to recycle the old thermostat!

- Recycle fluorescent light tubes and compact fluorescent bulbs when they burn out. Fluorescent lamps are very energy efficient, lasting up to 10 times as long as incandescent bulbs and using less energy for the same amount of light. However, fluorescent lamps and bulbs of all types contain some mercury and should not be disposed with household trash or placed into curbside recycling bins.
- Recycle button cell batteries, which contain mercury. In addition to accepting these items at the DPW drop-off center, we also have collection bins at various retailers where new button batteries are sold. Scout troops and clubs can help us recycle these batteries by "adopting" a collection box and delivering it to DPW when it gets full.
 Please let us know if you are interested.
- Recycle mercury fever thermometers rather than keeping them in your home or disposing of them in your trash. When recycling mercury fever thermometers, your family can receive a new, digital thermometer free.

We accept all of these mercury-containing items at the drop-off center at the DPW garage, Monday through Friday, 9 a.m. to 4 p.m., and the third Saturday of each month, 9 a.m. to noon

As you can see, the steps you take don't have to be hard, but you do need to take them! Remember, a journey of a thousand miles begins with the first step.

In this issue, we have focused only on the first condition. We will address the other conditions in upcoming issues. Watch for those articles. If you are interested in learning more, Tina Klein will be leading 2-hour discussions on each condition. Drop a note to recycle@townofnorthandover.com if you'd like to be notified when those sessions are scheduled.

In the meantime, if you would like more information, visit the SSNE website, www.ssne.org.



Brooks School students (from left, Charlie Cottingham, John Gallagher, and Brad Forgetta) "show off" some of the materials they picked up at the side of the road during last year's Earth Day Cleanup.

Earth Day Cleanup set for April 29

On Saturday, April 29, we'll hold our fourth annual Earth Day Cleanup. During the first three years of the cleanup, more than 650 volunteers took part, picking up 105 cubic yards of trash and litter. In past years, trash bags have been donated by Rocky's Ace Hardware, Social Action Committee of North Parish Church, Stop and Shop, and Market Basket. The dumpster and tipping fees for disposal have been donated by Wheelabrator North Andover.

It's not too early for you and your family to think about spring and a great community service project. Let us know you're interested in participating by sending an e-mail to recycle@townofnorthandover.com.

Paper pointers

- Having all paper in a paper bag or tied with twine helps speed the collection process and prevents litter on windy days.
- If you put your recyclables into a brown paper bag, please do NOT put any other recyclables into that bag with the paper. We have started to see cans and glass bottles mixed with the paper in the paper bags, causing potential contamination problems for the entire load of recyclables.
- We can recycle all clean paper, including phone books; newspaper; magazines; copier paper; cereal boxes and other types of paperboard; junk mail including window envelopes; construction paper; notebook paper; and paperback books.
- We cannot recycle paper that has come in direct contact with food, including pizza boxes and milk and juice cartons.
- All acceptable paper can be recycled curbside by placing it in a brown paper bag inside or next to the recycling bin. Or, you can deliver paper to the drop-off behind DPW

If you use an extra bin that is not a town-issued bin, please drill holes in the bottom, if possible. Recyclables floating in a pool of rainwater are difficult to collect and hard to recycle. Thanks!

More events planned for spring

Shredding Event—Thanks to all who came out to our free shredding event sponsored by Shred-Pro and NASWAC. This event helps to keep paper out of the trash and to protect you from identity theft. We had 50 cars come through in a 3-hour period and collected 3,000 pounds of paper. If you missed the fall event, our spring event will be held in May, the exact date will be published in the April edition of this newsletter.

If you have material you'd like to shred and recycle before that, Shred-Pro has a collection container at The UPS Store in Jasmine Plaza on Turnpike Street (Rt. 114). At this location, there is a small fee for disposal, about \$0.50 per pound.

Household Hazardous Waste Day—Our next Household Hazardous Waste (HHW) drop-off day is Saturday, April 15. Our fall collection was very successful. Here are some of the lessons residents learned at our last event:

- HHW includes oil-based paint, pesticides and herbicides, pool chemicals, hobby chemicals (glues, photographic chemicals, etc.), mercury, cleaners, poisons, and automotive fluids.
- Concrete mix is NOT hazardous. Please don't bring it the HHW Day.
- Latex paint is NOT hazardous. Please don't deliver it to HHW Day.
- Empty aerosol cans are NOT hazardous.
 There is no need to dispose of EMPTY cans as HHW. Put the cans in the trash.
- If you have several, partially filled cans of oil-based paint, please consolidate the paint into as few cans as possible. Put the EMPTY paint cans in the trash.

Time to recycle those holiday trees

In December, about 35 million cut trees were used to decorate homes for the holidays. Now that the holiday season is over, these cut trees have begun to dry out and must be disposed. Nationwide, more than two-thirds of the trees are recycled each year. Most are chipped and turned into mulch. Others are submerged in bodies of water to create fish habitat or to prevent shoreline erosion.

After the holidays, give your tree another life with recycling. Please remove all lights, decorations, ornaments, tinsel, and stands. Trees will be picked up at the curb on your regular trash day between January 2 and January 13. Please, do NOT put your trees into plastic tree bags!

We cannot recycle flocked trees or artificial trees. These trees would need to be placed in the trash.